



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Koji SAKUTA

Examiner: Amy A. Lewis

Serial No.: 10/781,710

Group Art Unit: 1614

Filed: February 20, 2004

Confirmation No. 4197

Title: DERMATIC COSMETIC MATERIAL

**BRIEF ON APPEAL UNDER 37 C.F.R. §41.37**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

ALEXANDRIA, VA 22313-1450

Sir:

Further to the Notice of Appeal filed February 20, 2008, attached herewith is Appellants' Brief on Appeal. Pursuant to 37 CFR §41.20(b)(2), attached is a check for \$620 for the filing of this Brief, and for a one month extension of time.

This is an appeal from the decision of the Examiner finally rejecting claims 8-50 and 52-57 in the Office Action issued September 20, 2007.

**(1) REAL PARTY IN INTEREST**

The application is assigned of record to Shin-Etsu Chemical Co., Ltd, of Tokyo, Japan, who is the real party in interest herein. The assignment is recorded at Reel 010982/Frame 0816 (Recordation Date July 19, 2000).

**(2) RELATED APPEALS AND INTERFERENCES**

Appellants, their legal representative and the assignee are not aware of any related

appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the instant appeal.

### **(3) STATUS OF THE CLAIMS**

Claims rejected: 8-50 and 52-57;

Claims allowed: None;

Claims canceled: 1-7;

Claims withdrawn: 51 and 58;

Claims objected to: None;

Claims on Appeal: 8-50 and 52-57. A copy of the appealed claims is provided in the attached Claim Appendix.

### **(4) STATUS OF AMENDMENTS AFTER FINAL**

Two Replies under 37 CFR §1.116 were filed subsequent to the Final Rejection of September 20, 2007, i.e., on December 20, 2007 and February 20, 2008. Neither of these Replies included any amendments.

### **(5) SUMMARY OF THE CLAIMED SUBJECT MATTER**

The invention relates to a non-aqueous dermatic cosmetic material. See, e.g., page 3, line 24 – page 4, line 2. As described in independent claim 8, the invention relates to a non-aqueous dermatic cosmetic material for perspiration control. The non-aqueous material of claim 8 comprises 100 parts by weight of a silicone composition paste comprising (i) a cross-linked silicone polymer having hydrophilic polyoxyalkylene groups comprising polyoxyethylene moieties and (ii) a silicone oil. See, e.g., page 4, lines 8-17, page 6, lines 21-25, and page 8, lines 3-10. In addition, the non-aqueous material of claim 8 comprises 50 to 500 parts by weight of an aluminum compound having a perspiration control activity. See, e.g., page 6, lines 21-27, and page 8, lines 3-10.

As described in the other independent claim, i.e., claim 24, the invention also relates to a non-aqueous dermatic cosmetic material containing vitamin C. See, e.g., page 4, lines 3-7. As in the material of claim 8, the non-aqueous dermatic cosmetic material of claim 24 comprises 100 parts by weight of a silicone composition paste comprising (i) a cross-linked

silicone polymer having hydrophilic polyoxyalkylene groups comprising polyoxyethylene moieties and (ii) a silicone oil (See, e.g., page 4, lines 8-17, page 6, lines 21-25, and page 8, lines 3-10). In addition, the non-aqueous dermatic cosmetic material of claim 24 comprises 100 to 1,000 parts by weight of lower alcohol; 100 to 1,000 parts by weight of a silicone oil having a viscosity of at most 100 mm<sup>2</sup>/s at 25°C; and 0.5 to 100 parts by weight of vitamin C. See, e.g., page 7, lines 7-21, and page 10, lines 2-8.

#### **(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The ground of rejections on Appeal are:

(1) whether claims 8-23 of the application are unpatentable under 35 U.S.C. §103(a) as allegedly being obvious in view of Sakuta (EP 0 501 791) and Shin (US 4,937,069);

(2) whether claims 24-47, 50, and 52-57 are unpatentable under 35 U.S.C. §103(a) as allegedly being obvious in view of Sakuta (EP 0 501 791) and Powell et al. (US 6,060,546); and

(3) whether claims 8-50 and 52-57 are unpatentable under 35 U.S.C. §103(a) as allegedly being obvious in view of Sakuta (EP 0 501 791) and Kilgour et al. (US 6,262,170).

## **(7) APPELLANTS' ARGUMENTS**

### **Rejection under 35 U.S.C. §103(a) in view of Sakuta and Shin**

Claims 8-23 remain rejected as allegedly being obvious under 35 U.S.C. § 103 in view of Sakuta (EP 0 501 791) in combination with Shin (US 4,937,069). Reconsideration of this rejection is respectfully requested.

Sakuta (EP '791) discloses a group of silicone polymers that can be swollen with silicone oils to obtain pasty silicone compositions that can be used to stably and uniformly disperse water. See page 2, lines 5-8.

As described at page 2, lines 10-40 of Sakuta, in the cosmetics field, silicon oils are used as a base oil for a variety of compositions. While in the past silicon oils with higher viscosities had been used, recently silicone oils with viscosity of less than 100 centistokes at 25 °C are used due to their "good extensibility, cool or refreshing touch and high safety." But, when using such low viscosity silicone oils, thickening agents, such as certain silicone polymers are used in order to obtain homogeneous, uniform compositions. One of the objects of Sakuta is to provide a "novel silicone polymer which is able to thicken low viscosity silicone oils" to make a paste or greasy composition. See page 2, lines 44-45 of Sakuta.

In addition, Sakuta discloses that in the cosmetic field compositions are formulated with not only oils, but also with water. In such compositions surface active agents are usually added, which can irritate the skin. Moreover, it is said to be difficult to disperse silicone oils and water uniformly and stably. For this reason, one of the objects of Sakuta is to obtain "a pasty silicone oil composition wherein water can be uniformly, stably dispersed in the composition without use of any surface active agent." See page 2, lines 47-48 of Sakuta.

The pasty composition of Sakuta is prepared by subjecting 100 parts by weight of the silicone polymer and 10 to 1000 parts by weight of a silicone oil to kneading under shearing conditions. The polymer, due to its good swelling properties in silicone oils, is said to provide a uniform pasty composition, when combined with silicone oils and kneaded as described. Further, this composition can disperse powders or pigments. To render the pasty composition useful "as a base for creams and cake-shaped moldings for cosmetics and products other than drugs," the pasty composition can be dispersed in water without resorting to the use of surface active agents. See, e.g., page 5, lines 4-9 and 26-30.

From the above discussion, it is evident that, as it relates to cosmetic compositions, the disclosure of Sakuta is directed to aqueous cosmetic compositions wherein water is dispersed in the pasty silicone composition. This is also apparent from the Examples. In each of Examples 1 - 4, water is added to the pasty composition to obtain a creamy composition. Also, Applications 1 and 2 on page 8-9, which involve water dispersed in the pasty composition, are directed to a face cream formulation and a makeup foundation formulation.

In addition, Sakuta's silicone polymer is designed specifically to be for use in applications where it is necessary to disperse water. For example, in the formulas describing the silicone polymer, subscripts "a" and "b" are selected so that their values do not result in compositions that inadequately disperse water. See page 3, line 56-page 4, line 5.

Sakuta thus does not disclose or suggest a non-aqueous cosmetic composition. Nor does Sakuta disclose or suggest a non-aqueous dermatic cosmetic for perspiration control comprising 50 to 500 parts by weight of an aluminum compound having perspiration control activity per 100 parts by weight of a silicone composition paste (compare, e.g., appellants' claim 8).

It is noted that appellants' own disclosure can not be used against them. It is evident that the concept of developing a non-aqueous cosmetic composition comes from appellant's disclosure, not from the disclosure of Sakuta. Nothing within the rejection indicates why one of ordinary skill in the art seeking to provide a non-aqueous cosmetic composition would look to Sakuta's disclosure of a composition that is specifically designed to be able to uniformly disperse water. In an obviousness determination, one can not employ impermissible hindsight by using the claimed invention as a roadmap to locate the components thereof in the prior art. See, e.g., *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005).

In order for a nonaqueous material to be obvious in view of the disclosure of Sakuta, it is necessary for the rejection to present reasoning as to why one of ordinary skill in the art would produce a nonaqueous material in light of the disclosure. As can be seen from the Examiner's arguments presented in the Final Rejection in the Office Action of September 20, 2007, it is evident that the rejection is based on an alleged modification of an intermediate "nonaqueous material," not the final cosmetic composition which is aqueous. The Office Action looks to "Application 2" at page 8 of Sakuta. See page 4 of the September 20, 2007

Office Action. However, this example, in which water is added to a material to produce the final product, does not suggest to one of ordinary skill in the art the production of nonaqueous materials other than as an intermediate in the production of a final product. In other words, the reference does not suggest the production of a nonaqueous material, *per se*.

Regarding modification of intermediate materials, see *In re Lalu*, 747 F.2d 703, 223 USPQ 1257 (Fed.Cir. 1984). See also *In re Jyurik*, 596 F.2d 1012, 201 USPQ 552 (CCPA1979) where the Federal Circuit's predecessor Court held that just because "an intermediate/end product relationship exists", "such a relationship does not render obvious the stopping of the synthesis of the end product and isolating the intermediate."

In the rejection, it is asserted that it would be obvious to modify the nonaqueous silicone oil composition of Sakuta by the addition of an antiperspirant compound. However, the rejection presents no rationale as to why one would disperse an antiperspirant compound in the intermediate non-aqueous composition rather than dispersing the antiperspirant compound in the water which is to be mixed with the non-aqueous composition to form the final product. See, e.g., appellants' specification at page 2, lines 21-26 where it is described that active substances are dispersed into water or a water-alcohol mixture since the active substance can be dissolved homogeneously and thus prevent sedimentation during storage.

At page 5, lines 26-30, Sakuta discloses that its pasty composition formed from the silicone polymer and silicone oil can stably disperse powders and pigments without settlement due to the difference in density between the silicon oil and the powder or pigment. However, Sakuta provides no disclosure or suggestion that the silicon composition described therein can stably disperse active substances such as antiperspirants or vitamin C. Merely because Sakuta discloses that the composition can be used to form face creams or foundations (see page 8), this does not provide any suggestion that one of ordinary skill in the art would have any reasonable expectation that the silicone composition of Sakuta could be used to provide a stabilized dispersion of antiperspirant or vitamin C.

The problems associated with stabilizing antiperspirant or vitamin C in skin care composition is described in applicants' specification at pages 1-3. In light of such problems, one of ordinary skill in the art would have no expectation that the silicone composition of Sakuta would be suitable for stabilizing antiperspirant or vitamin C in skin care compositions.

As noted above, Sakuta does not disclose a non-aqueous dermatic cosmetic for

perspiration control comprising 50 to 500 parts by weight of an aluminum compound having perspiration control activity (compare, e.g., appellants' claim 8). With respect to the addition of an aluminum compound having perspiration control activity to the intermediate non-aqueous composition of Sakuta, the rejection relies on the disclosure of Shin (US '069).

Shin (US '069) discloses a substantially anhydrous semi-solid antiperspirant composition. As noted in the rejection, Shin disclose problems associated with the use of hydrous compositions. In light of such teachings and disclosure, the rejection fails to set forth any rationale as to why one of ordinary skill in the art would look to a disclosure - which describes an anhydrous composition and the problems of hydrous compositions - to modify a composition designed for use in an aqueous composition.

The composition of Shin contain antiperspirant powder, a thickening/suspending agent containing fumed silica, a thickening/solid emollient, a nonvolatile liquid emollient/plasticizer, and a volatile emollient. See, e.g., column 1, lines 41-50.

The antiperspirant powder can be "astringent aluminum or zirconium compounds or complexes." See, e. g., column 2, lines 53-63. Suitable silica materials for the a thickening/suspending agent are described at column 4, line 11-column 5, line 7. The thickening/solid emollient can be "any non-toxic, non-irritating organic wax having a melting point greater than about 20°C to 120°C." See column 5, lines 13-15. Suitable nonvolatile liquid emollients/plasticizers include silicone oils. See, e.g., column 5, lines 40-52. Suitable volatile emollients are cyclomethicones and volatile silicones such as certain cyclic dimethylpolysiloxanes. See column 6, lines 1-19.

A major component of the composition described by Sakuta a silicone polymer made from an organohydrogenpolysiloxane and either a polyoxyalkylene or an organopolysiloxane. Shin does not disclose or suggest a composition containing such a silicone polymer. Thus, Shin does not suggest modifying compositions such as taught by Sakuta.

In the rejection, it is asserted that it would be obvious to use aluminum compounds "in conjunction with" the composition describe by Sakuta in order to provide antiperspirant activity "when using the organohydrogenpolysiloxane in an antiperspirant cosmetic composition." However, the prior art does not suggest such a use. Sakuta does not mention use of the disclosed compositions for an antiperspirant, and Shin does not suggest the use of a silicone polymer similar to the silicone polymer disclosed by Sakuta in an antiperspirant

composition.

It is further asserted in the rejection that it would be obvious to use organohydrogenpolysiloxane in the Shin composition “to eliminate the problems of stability associated with oils ... by using a component that adsorbs oils such as silicone oils.” No support is provided for this assertion. The rejection does not indicate where in the prior art such a problem is described or where the use of a silicone oil to adsorb oil will address such a problem.

Appellants’ specification beginning at page 1, line 27 describes the use and problems associated with using silicone oils. Further, beginning at page 2, line 6, appellants’ specification describes the use of waxy agents in place of silicone oils.

It is also noted that one of the ingredients in the Shin composition is an organic waxy material. This material is said to “not only adsorb volatile and nonvolatile liquid emollients, but they also enhance ease of auxiliary applicability and are especially useful for improving slip.” Thus, the waxy ingredient present in the Shin composition already provides the absorption feature stated in the rejection, as well as other desirable features. Thus, the rejection fails to present any rationale that would lead one of ordinary skill in the art to replace the organic wax material in the composition of Shin with a silicone polymer made from an organohydrogenpolysiloxane, let alone the silicone polymer disclosed by Sakuta.

Concerning amounts, appellants’ claim 8 expressly recites that the composition contains 100 parts by weight of the silicone composition paste and 50 to 500 parts by weight of an aluminum compound having a perspiration control activity per 100 parts by weight of a specific silicone composition paste. The Examiner implies that such a recitation is meaningless because it is in parts by weight and does not state the total weight of the composition. Reciting amounts in parts in by weight clearly describe the amount of a component relative to the amount of another component. The rejection fails to establish how the amounts 100 parts by weight of the silicone composition paste and 50 to 500 parts by weight of an aluminum compound are rendered obvious by the prior art.

Accordingly, it is submitted that the references, singly or in combination, do not suggest the presently claimed materials. For example, none of the references, singly or in combination, provide an expectation for one of ordinary skill in the art that the silicon



composition described by Sakuta can stably disperse active substances such as antiperspirants and vitamin C. Reversal of the rejection is respectfully requested.

**Rejection under 35 U.S.C. §103(a) in view of Sakuta and Powell et al.**

Claims 24-47, 50 and 52-57 remain rejected under 35 U.S.C. §103 over Sakuta taken with Powell (U.S. Patent No. 6,060,546). Reconsideration of this rejection is respectfully requested.

Sakuta (EP '791) discloses a group of silicone polymers that can be swollen with silicone oils to obtain pasty silicone compositions that can be used to stably and uniformly disperse water. See page 2, lines 5-8.

As described at page 2, lines 10-40 of Sakuta, in the cosmetics field, silicon oils are used as a base oil for a variety of compositions. While in the past silicon oils with higher viscosities had been used, recently silicone oils with viscosity of less than 100 centistokes at 25 °C are used due to their “good extensibility, cool or refreshing touch and high safety.” But, when using such low viscosity silicone oils, thickening agents, such as certain silicone polymers are used in order to obtain homogeneous, uniform compositions. One of the objects of Sakuta is to provide a “novel silicone polymer which is able to thicken low viscosity silicone oils” to make a paste or greasy composition. See page 2, lines 44-45 of Sakuta.

In addition, Sakuta discloses that in the cosmetic field compositions are formulated with not only oils, but also with water. In such compositions surface active agents are usually added, which can irritate the skin. Moreover, it is said to be difficult to disperse silicone oils and water uniformly and stably. For this reason, one of the objects of Sakuta is to obtain "a pasty silicone oil composition wherein water can be uniformly, stably dispersed in the composition without use of any surface active agent." See page 2, lines 47-48 of Sakuta.

The pasty composition of Sakuta is prepared by subjecting 100 parts by weight of the silicone polymer and 10 to 1000 parts by weight of a silicone oil to kneading under shearing conditions. The polymer, due to its good swelling properties in silicone oils, is said to provide a uniform pasty composition, when combined with silicone oils and kneaded as described. Further, this composition can disperse powders or pigments. To render the pasty composition useful “as a base for creams and cake-shaped moldings for cosmetics and products other than drugs,” the pasty composition can be dispersed in water without resorting to the use of surface

active agents. See, e.g., page 5, lines 4-9 and 26-30.

From the above discussion, it is evident that, as it relates to cosmetic compositions, the disclosure of Sakuta is directed to aqueous cosmetic compositions wherein water is dispersed in the pasty silicone composition. This is also apparent from the Examples. In each of Examples 1 - 4, water is added to the pasty composition to obtain a creamy composition. Also, Applications 1 and 2 on page 8-9, which involve water dispersed in the pasty composition, are directed to a face cream formulation and a makeup foundation formulation.

In addition, Sakuta's silicone polymer is designed specifically to be for use in applications where it is necessary to disperse water. For example, in the formulas describing the silicone polymer, subscripts "a" and "b" are selected so that their values do not result in compositions that inadequately disperse water. See page 3, line 56-page 4, line 5.

Sakuta thus does not disclose or suggest a non-aqueous cosmetic composition. Nor does Sakuta disclose or suggest a non-aqueous dermatic cosmetic for perspiration control comprising 0.5 to 100 parts by weight of vitamin C per 100 parts by weight of a silicone composition paste (compare, e.g., appellants' claim 24).

It is noted that appellants' own disclosure can not be used against them. It is evident that the concept of developing a non-aqueous cosmetic composition comes from appellant's disclosure, not from the disclosure of Sakuta. Nothing within the rejection indicates why one of ordinary skill in the art seeking to provide a non-aqueous cosmetic composition would look to Sakuta's disclosure of a composition that is specifically designed to be able to uniformly disperse water. In an obviousness determination, one can not employ impermissible hindsight by using the claimed invention as a roadmap to locate the components thereof in the prior art. See, e.g., *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332 (Fed. Cir. 2005).

In order for a nonaqueous material to be obvious in view of the disclosure of Sakuta, it is necessary for the rejection to present reasoning as to why one of ordinary skill in the art would produce a nonaqueous material in light of the disclosure. As can be seen from the Examiner's arguments presented in the Final Rejection in the Office Action of September 20, 2007, it is evident that the rejection is based on an alleged modification of an intermediate "nonaqueous material," not the final cosmetic composition which is aqueous. The Office Action looks to "Application 2" at page 8 of Sakuta. See page 4 of the September 20, 2007

Office Action. However, this example, in which water is added to a material to produce the final product, does not suggest to one of ordinary skill in the art the production of nonaqueous materials other than as an intermediate in the production of a final product. In other words, the reference does not suggest the production of a nonaqueous material, *per se*.

Regarding modification of intermediate materials, see *In re Lulu*, 747 F.2d 703, 223 USPQ 1257 (Fed.Cir. 1984). See also *In re Jyurik*, 596 F.2d 1012, 201 USPQ 552 (CCPA1979) where the Federal Circuit's predecessor Court held that just because “an intermediate/end product relationship exists”, “such a relationship does not render obvious the stopping of the synthesis of the end product and isolating the intermediate.”

In the rejection, it is asserted that it would be obvious to modify the nonaqueous silicone oil composition of Sakuta by the addition of vitamin C. However, the rejection presents no rationale as to why one would disperse vitamin C in the intermediate non-aqueous composition rather than dispersing the antiperspirant compound in the water which is to be mixed with the non-aqueous composition to form the final product. See, e.g., appellants’ specification at page 2, lines 21-26 where it is described that active substances are dispersed into water or a water-alcohol mixture since the active substance can be dissolved homogeneously and thus prevent sedimentation during storage.

At page 5, lines 26-30, Sakuta discloses that its pasty composition formed from the silicone polymer and silicone oil can stably disperse powders and pigments without settlement due to the difference in density between the silicon oil and the powder or pigment. However, Sakuta provides no disclosure or suggestion that the silicon composition described therein can stably disperse active substances such as antiperspirants or vitamin C. Merely because Sakuta discloses that the composition can be used to form face creams or foundations (see page 8), this does not provide any suggestion that one of ordinary skill in the art would have any reasonable expectation that the silicone composition of Sakuta could be used to provide a stabilized dispersion of antiperspirant or vitamin C.

The problems associated with stabilizing antiperspirant or vitamin C in skin care composition is described in applicants’ specification at pages 1-3. In light of such problems, one of ordinary skill in the art would have no expectation that the silicone composition of Sakuta would be suitable for stabilizing antiperspirant or vitamin C in skin care compositions.

As noted above, Sakuta does not disclose a non-aqueous dermatic cosmetic for

perspiration control comprising 0.5 to 100 parts by weight of vitamin C per 100 parts by weight of a silicone composition paste (compare, e.g., appellants' claim 24). With respect to the addition of vitamin C to the intermediate non-aqueous composition of Sakuta, the rejection relies on the disclosure of Powell et al.

Powell et al. disclose a non-aqueous silicone emulsion which comprises a silicone phase and an organic phase. The silicone phase comprises a silicone elastomer and a low molecular weight silicone compound. The organic phase comprises an organic liquid. The composition is described as being useful for personal care compositions. See the abstract.

The rejection asserts that Powell et al. disclose that the compositions they describe can contain aluminum compounds such as aluminum chlorohydrate, and also can contain ascorbic acid as an enzyme.

Yet, the rejection further acknowledges that Powell et al. does not contain an organohydrogenpolysiloxane. The suggestion of using aluminum compounds and ascorbic acid in one type of composition does not suggest their use in significantly different compositions. As noted, the Powell et al. composition does not contain organohydrogenpolysiloxane, let alone a silicone polymer made from an organohydrogenpolysiloxane as disclosed by Sakuta. Nothing in the Powell et al. disclosure suggests using aluminum compounds and/or ascorbic acid in compositions like Sakuta that employ a silicone polymer made from an organohydrogenpolysiloxane and either a polyoxyalkylene or an organopolysiloxane as a major component.

Powell et al. do not suggest materials comprising a combination of cross-linked silicones with vitamin C. Neither of the references teaches or suggests the concept of combining water-degradable vitamin C with hydrophilic cross-linked silicones, as in the rejected claims.

Similarly, Powell et al. provide no suggestion as to what amounts of such agents would be used in a composition containing an organohydrogenpolysiloxane. Compare appellants' claim 24 which recites that the composition contains 0.5 to 100 parts by weight of vitamin C per 100 parts by weight of a specific silicone composition paste. The Examiner implies that such a recitation is meaningless because it is in parts by weight and does not state the total weight of the composition. Reciting amounts in parts by weight clearly describe the amount of a component relative to the amount of another component. The rejection fails to

establish how the amounts 100 parts by weight of the silicone composition paste and 0.5 to 100 parts by weight of vitamin C are rendered obvious by the prior art.

As a further note, while Powell at al. refer to their compositions as non-aqueous, the compositions in fact can contain water. See, e.g., column 3, lines 23-25 which states that in the context of the Powell at al. disclosure, non-aqueous means that the organic phase of the present invention comprises less than 50 parts by weight water per 100 pbw of the organic phase.

Concerning amounts, appellants' claim 24 expressly recites that the composition contains 100 parts by weight of the silicone composition paste and 0.5 to 100 parts by weight of an aluminum compound having a perspiration control activity. The Examiner implies that such a recitation is meaningless because it is in parts by weight and does not state the total weight of the composition. Reciting amounts in parts by weight clearly describe the amount of a component relative to the amount of another component. The rejection fails to establish how the amounts 100 parts by weight of the silicone composition paste and 50 to 500 parts by weight of an aluminum compound are rendered obvious by the prior art.

Accordingly, it is submitted that the references, singly or in combination, do not suggest the presently claimed materials. For example, none of the references, singly or in combination, provide an expectation for one of ordinary skill in the art that the silicon composition described by Sakuta can stably disperse active substances such as antiperspirants and vitamin C. Reversal of the rejection is respectfully requested.

**Rejection under 35 U.S.C. §103(a) in view of Sakuta and Kilgour et al.**

Claims 8-50 and 52-57 remain rejected under 35 U.S.C. §103 over Sakuta taken with Kilgour (U.S. Patent No. 6,262,170). Reconsideration of this rejection is respectfully requested.

The disclosure of Sakuta is discussed above. In the rejection, the disclosure of Kilgour et al. is relied on for its disclosure of using aluminum compounds in antiperspirant compositions and skin care compositions that contain, for example, vitamin C. The personal care compositions disclosed by Kilgour et al. contain a cross-linked alkyl

substituted silicone elastomer which is said to comprise a cross-linked hydrosilylation reaction product of:

- (i) an alkenyl functional silicone compound;
- (ii) a silylhydride functional silicone compound; and
- (iii) one or more  $\alpha,\beta$ -ethylenically unsaturated alkenes.

The Kilgour et al. disclosure, however, is devoid of any suggestion of a silicone polymer that contains any oxyalkylene units or other hydrophobic structures. Thus, Kilgour et al. provide no suggestion for modifying the compositions of Sakuta that contain a silicone polymer having oxyalkylene units.

In the rejection (see page 6 of the September 20, 2007 Office Action), the Examiner argues that Kilgour is cited simply for a teaching of additional components in cosmetic compositions. However, this neglects the important question of whether one of ordinary skill in the art would extract those teachings for use with the primary reference. In fact, one of ordinary skill in the art would not do so. It is clear that silicone elastomer described in Kilgour is hydrophobic since it does not have any hydrophilic groups. Therefore, one of ordinary skill in the art would not modify the composition of Sakuta in view of the Kilgour reference, since the oxyalkylene unit-containing silicone of Sakuta is completely different physically.

Similarly, Kilgour provide no suggestion as to what amounts of such agents would be used in a composition containing an organohydrogenpolysiloxane. Compare appellants' claim 8 which expressly recites that the composition contains 100 parts by weight of the silicone composition paste and 50 to 500 parts by weight of an aluminum compound having a perspiration control activity per 100 parts by weight of a specific silicone composition paste. Compare also appellants' claim 24 which recites that the composition contains 0.5 to 100 parts by weight of vitamin C per 100 parts by weight of a specific silicone composition paste. The Examiner implies that such a recitation is meaningless because it is in parts by weight and does not state the total weight of the composition. Reciting amounts in parts in by weight clearly describe the amount of a component relative to the amount of another component. The rejection fails to establish how the amounts 100 parts by weight of the silicone composition paste and 0.5 to 100 parts by weight of vitamin C or 100 parts by weight of the silicone composition paste and 50 to 500 parts by weight of an aluminum compound are rendered

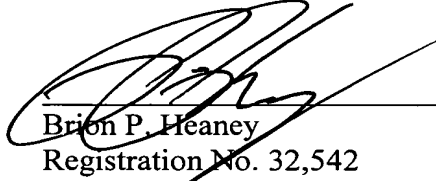
obvious by the prior art.

Accordingly, it is submitted that the references, singly or in combination, do not suggest the presently claimed materials. For example, none of the references, singly or in combination, provide an expectation for one of ordinary skill in the art that the silicon composition described by Sakuta can stably disperse active substances such as antiperspirants and vitamin C. Reversal of the rejection is respectfully requested.

**(8) CONCLUSION**

For all of the above reasons, it is urged that the decision of the Examiner rejecting claims 8-50 and 52-57, on appeal, is in error and should be reversed.

Respectfully submitted,



Brian P. Heaney  
Registration No. 32,542

**Filed: May 20, 2008**

## **CLAIMS APPENDIX**

### **Listing of Claims:**

8. (Previously Presented): A non-aqueous dermatic cosmetic material for perspiration control, comprising:

(A) 100 parts by weight of a silicone composition paste comprising (i) a cross-linked silicone polymer having hydrophilic polyoxyalkylene groups wherein polyoxyethylene moieties are comprised and (ii) a silicone oil, and

(B) 50 to 500 parts by weight of an aluminum compound having a perspiration control activity,

wherein said material is non-aqueous.

9. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein the silicone polymer is a polymer produced by carrying out addition polymerization reaction of a hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane, an organohydrogenpolysiloxane or a mixture thereof with a hydrophilic polyalkylene oxide having terminal aliphatic unsaturated groups, an organopolysiloxane having terminal aliphatic unsaturated groups or a mixture thereof, provided that at least either the hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane or the polyalkylene oxide is a reactant in the addition polymerization reaction.

10. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein the hydrophilic polyoxyalkylene groups are polyoxyethylene groups.

11. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein the aluminum compound is an aluminum chlorohydrate or an aluminum zirconium chlorohydrate.

12. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein the amount of said aluminum compound is 50 to 300 parts by weight.



13. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein the silicone oil (ii) of the silicone composition paste (A) is dimethylpolysiloxane or decamethylcyclopentanesiloxane.

14. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein said cross-linked silicone polymer having hydrophilic polyoxyalkylene groups is produced by an addition polymerization reaction between an organohydrogenpolysiloxane and a compound having terminal aliphatic unsaturated groups.

15. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 14, wherein said organohydrogenpolysiloxane is a hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane represented by formula,  $R^1_a R^2_b H_c SiO_{(4-a-b)/2}$  (1), an organohydrogenpolysiloxane represented by formula,  $R^1_j H_k SiO_{(4-j-k)/2}$  (2), or a mixture thereof, and said compound having terminal aliphatic unsaturated groups action is a polyalkylene oxide represented by formula,  $C_m H_{2m-1} (C_2 H_4 O)_p (C_3 H_6 O)_q C_m H_{2m-1}$  (A), an organopolysiloxane represented by formula,  $R^1_d R^3_e SiO_{(4-d-e)/2}$  (B), or a mixture thereof; and wherein

$R^1$  is an alkyl group containing 1 to 18 carbon atoms, an aryl group, an aralkyl group or a monovalent halogenated hydrocarbon group,

$R^2$  is  $-C_n H_{2n} O (C_2 H_4 O)_f (C_3 H_6 O)_g R^4$ ,

$R^3$  is a monovalent hydrocarbon group containing 2 to 10 carbon atoms and having a terminal vinyl group;

$R^4$  is a hydrogen atom, a saturated organic group containing 1 to 10 carbon atoms, or  $-CO-R^5$ ,

$R^5$  is a saturated organic group containing 1 to 5 carbon atom;

$1.0 \leq a \leq 2.5$ ,  $0.001 \leq b \leq 1.0$ ,  $0.001 \leq c \leq 1.0$ ,  $1.0 \leq d \leq 3.0$ ,  $0.001 \leq e \leq 1.5$ ,  $1.0 \leq j \leq 3.0$ ,  $0.001 \leq k \leq 1.5$ ,

f and p are each an integer of from 2 to 200,

g and q are each an integer of from 0 to 200, and

m and n are each an integer of from 2 to 6;

and wherein said addition polymerization reaction involves at least either the organohydrogenpolysiloxane represented by formula (1) or the polyalkylene oxide represented by formula (A).

16. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising a lower alcohol or a polyhydric alcohol.

17. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising an alcohol selected from ethanol, 2-propanol, ethylene glycol, diethylene glycol, triethylene glycol, propylene glycol, dipropylene glycol, tripropylene glycol, isoproterenol and glycerine.

18. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 17, wherein said alcohol is ethanol or dipropylene glycol.

19. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising a silicone oil (E) having a viscosity of no higher than 100 mm<sup>2</sup>/s at 25°C.

20. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 19, wherein said silicone oil having a viscosity of no higher than 100 mm<sup>2</sup>/s at 25°C is a straight-chain or branched dimethylsilicone, a methylphenylsilicone or a fluorine-modified silicone.

21. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 19, wherein said silicone oil having a viscosity of no higher than 100 mm<sup>2</sup>/s at 25°C has a viscosity of no higher than 50 mm<sup>2</sup>/s.

22. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 19, wherein said silicone oil having a viscosity of no higher than 100 mm<sup>2</sup>/s at 25°C is a volatile dimethylsilicone having a boiling point of no higher than 250°C.

23. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising ester oil, hydrocarbon oil, cetyl alcohol, stearyl alcohol, and/or perfume.

24. (Previously Presented): A non-aqueous dermatic cosmetic material, comprising:

(A) 100 parts by weight of a silicone composition paste comprising (i) a cross-linked silicone polymer having hydrophilic polyoxyalkylene groups wherein polyoxyethylene moieties are comprised and (ii) a silicone oil,

(C) 100 to 1,000 parts by weight of lower alcohol,

(E) 100 to 1,000 parts by weight of a silicone oil having a viscosity of at most 100 mm<sup>2</sup>/s at 25°C, and

(F) 0.5 to 100 parts by weight of vitamin C,

wherein said material is non-aqueous.

25. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein the silicone polymer is a polymer produced by carrying out addition polymerization reaction of a hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane, an organohydrogenpolysiloxane or a mixture thereof with a hydrophilic polyalkylene oxide having terminal aliphatic unsaturated groups, an organopolysiloxane having terminal aliphatic unsaturated groups or a mixture thereof, provided that at least either the hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane or the polyalkylene oxide is a reactant in the addition polymerization reaction.

26. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein the hydrophilic polyoxyalkylene groups are polyoxyethylene groups.

27. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said material further comprises an aluminum compound selected from aluminum chlorohydrate and aluminum zirconium chlorohydrate.

28. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said material further comprises 50 to 300 parts by weight of an aluminum compound.

29. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein the lower alcohol is ethanol, 2-propanol, ethylene glycol, diethylene glycol, triethylene glycol, propylene glycol, dipropylene glycol, tripropylene glycol, isoproterenol, or glycerine.

30. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, comprising 100 to 500 parts by weight of the lower alcohol.

31. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said cross-linked silicone polymer having hydrophilic polyoxyalkylene groups is produced by an addition polymerization reaction between an organohydrogenpolysiloxane and a compound having terminal aliphatic unsaturated groups.

32. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 31, wherein said organohydrogenpolysiloxane is a hydrophilic polyoxyalkylene group-containing organohydrogenpolysiloxane represented by formula,  $R^1_a R^2_b H_c SiO_{(4-a-b)/2}$  (1), an organohydrogenpolysiloxane represented by formula,  $R^1_j H_k SiO_{(4-j-k)/2}$  (2), or a mixture thereof, and said compound having terminal aliphatic unsaturated groups action is a polyalkylene oxide represented by formula,  $C_m H_{2m-1} (C_2 H_4 O)_p (C_3 H_6 O)_q C_m H_{2m-1}$  (A), an organopolysiloxane represented by formula,  $R^1_d R^3_e SiO_{(4-d-e)/2}$  (B), or a mixture thereof; and wherein

$R^1$  is an alkyl group containing 1 to 18 carbon atoms, an aryl group, an aralkyl group or a monovalent halogenated hydrocarbon group,

$R^2$  is  $-C_nH_{2n}O(C_2H_4O)_f(C_3H_6O)_gR^4$ ,

$R^3$  is a monovalent hydrocarbon group containing 2 to 10 carbon atoms and having a terminal vinyl group;

$R^4$  is a hydrogen atom, a saturated organic group containing 1 to 10 carbon atoms, or  $-CO-R^5$ ,

$R^5$  is a saturated organic group containing 1 to 5 carbon atom,;

$1.0 \leq a \leq 2.5$ ,  $0.001 \leq b \leq 1.0$ ,  $0.001 \leq c \leq 1.0$ ,  $1.0 \leq d \leq 3.0$ ,  $0.001 \leq e \leq 1.5$ ,  $1.0 \leq j \leq 3.0$ ,  
 $0.001 \leq k \leq 1.5$ ,

$f$  and  $p$  are each an integer of from 2 to 200,

$g$  and  $q$  are each an integer of from 0 to 200, and

$m$  and  $n$  are each an integer of from 2 to 6;

and wherein said addition polymerization reaction involves at least either the organohydrogenpolysiloxane represented by formula (1) or the polyalkylene oxide represented by formula (A).

33. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said lower alcohol of Component (C) is a monohydric alcohol.

34. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said lower alcohol of Component (C) is a polyhydric alcohol.

35. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said lower alcohol of Component (C) is a water-soluble alcohol.

36. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said silicone oil of Component (E) is selected from straight-chain or branched dimethylsilicone, methylphenylsilicone and fluorine-modified silicone.

37. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said silicone oil of Component (E) has a viscosity of at most  $50 \text{ mm}^2/\text{s}$  at  $25^\circ\text{C}$ .

38. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said silicone oil of Component (E) is a volatile dimethylsilicone having a boiling point of no higher than 250°C.

39. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said material contains 100 to 500 parts by weight of said silicone oil of Component (E).

40. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said material contains 0.5 to 50 by weight of vitamin C.

41. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said lower alcohol is dipropylene glycol or 1,3-butylene.

42. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said silicone composition paste (A) contains 100 parts by weight of said crosslinked silicone polymer (i) and 300 to 400 parts by weight of said the silicone oil (ii).

43. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said the silicone oil (ii) of the silicone composition paste (A) is dimethylpolysiloxane or decamethylcyclopentanesiloxane.

44. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein the silicone oil (E) is dimethylpolysiloxane, decamethylcyclopentanesiloxane, or mixtures thereof.

45. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 44, wherein the silicone oil (E) is decamethylcyclopentanesiloxane.

46. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein the silicone oil (E) is 35-47 wt. % of the total composition.

47. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, further comprising cetyl alcohol and /or stearyl alcohol.

48. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, further comprising vitamin A, vitamin B, vitamin D, vitamin E, vitamin F, vitamin K, vitamin L, vitamin T, vitamin U, and mixtures thereof.

49. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, further comprising vitamin E.

50. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 24, wherein said the silicone oil (ii) of the silicone composition paste (A) is dimethylpolysiloxane or decamethylcyclopentanesiloxane.

52. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, wherein said silicone composition paste (A) contains 100 parts by weight of said crosslinked silicone polymer (i) and 300 to 400 parts by weight of said the silicone oil (ii).

53. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 19, wherein the silicone oil (E) is dimethylpolysiloxane, decamethylcyclopentanesiloxane, or mixtures thereof.

54. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 19, wherein the silicone oil (E) is 30-60 wt. % of the total composition.

55. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising cetyl alcohol and /or stearyl alcohol.

56. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising vitamin A, vitamin B, vitamin D, vitamin E, vitamin F, vitamin K, vitamin L, vitamin T, vitamin U, and mixtures thereof.

57. (Previously Presented): A non-aqueous dermatic cosmetic material according to claim 8, further comprising vitamin E.



## **EVIDENCE APPENDIX**

Not Applicable.

## **RELATED PROCEEDINGS APPENDIX**

Not Applicable.